

CLAIMS

1. An alternating-current electric motor including a stator magnetic circuit comprising a first part (2) on which electrical windings (7, 8) are mounted and a second, hollow, part (10) within which is mounted a cylindrical rotor (14) equipped with a rotational shaft (15) supported by at least two bearings (16 and 17), which motor is characterized in that it further includes a stator chamber (20) with a leaktight wall, at least a part of which is produced from a non-magnetic insulating material, within which are mounted the first part (2) of the stator magnetic circuit and the electrical windings (7, 8), the second part (10) of the stator magnetic circuit, the cylindrical rotor (14) and the support bearings (16 and 17) lying outside the said chamber and being arranged in such a way that the stator magnetic circuit passes through the wall of the said chamber in the part produced from non-magnetic insulating material.

2. The motor as claimed in claim 1, characterized in that, with the shaft (15) of the rotor (14) of the said motor being linked mechanically to the shaft (27) of the rotor (32) of a pump, the second part (10) of the stator magnetic circuit, the rotor (14) of the said motor, the support bearings (16 and 17) and the rotor (32) of the pump are enclosed in a rotor chamber (30) with a leaktight wall equipped with an inlet (34) and with an outlet (35) for a fluid to be pumped.

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3. The motor as claimed in either of claims 1 and 2, characterized in that the leaktight wall of the stator chamber (20) includes a device (40) for compensating for the pressure difference between the inside and the outside of the said chamber.

4. The motor as claimed in one of claims 1 to 3, characterized in that the stator electrical windings (7, 8) include at least one connection (38) for drawing electrical energy.

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10 5. The motor as claimed in one of claims 1 to 3, characterized in that the stator magnetic circuit includes a supplementary electrical winding for drawing electrical energy.

15 6. The motor as claimed in one of claims 1 to 5, characterized in that it further includes an inlet tapping (24) and an outlet tapping (25) which are mounted on the wall of the stator chamber (20) for connecting an external device for cooling a fluid filling the stator chamber (20).

20 7. The motor as claimed in one of claims 1 to 6, characterized in that it further includes a jacket (43) produced from a non-magnetic insulating material which encases the first part (2) of the stator magnetic circuit, connected in leaktight fashion to the part (22) produced from non-magnetic insulating material of the wall of the chamber (20) in order to render the said chamber leaktight.

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